RCRA Subpart CC
Organic Air Emission Controls
for Tanks, Surface Impoundments and Containers

Truth or Consequences

ANSWERS

A Facilitated Case Study By TechLaw, Inc.

Facility #1

TSDF Miscellaneous Treatment Unit (MTU) system for treatment of refinery production and remediation wastes, including oily hazardous wastes such as tank bottoms, tank sludge, API separator sludge and contaminated soil from petroleum product spill clean-ups or corrective actions. Identify whether each unit is a container or tank and indicate the appropriate level (C1, C2, C3, T1 or T2).

A. 40 cubic yard roll off, incoming hazardous waste material, nothing added. (Feeds unit B). *Container, Level 2 assumed unless proven otherwise.*
B. 1,000 gallon steel bin with debris separation screen. (Feeds unit C). *Tank, Level 2 unless proven otherwise (unlikely because of waste varieties).*
C. 8 ton/hour rotary kiln-type thermal desorption unit, may be run as batch or continuous feed. (Feeds units D and F). *Subpart X unit, treat as Tank, Level 2.*
D. 10 cubic yard waste stabilization unit, mixing waste with additives such as lime or Portland cement materials to bind up metal constituents in the residuals. (Feeds unit E). *Tank, Level 2, unless it can be proven that the organics have been separated from the wastes after Unit C.*
E. 20 cubic yard roll off receiving waste and additives from stabilization unit. (Feeds offsite landfill). *Container, Level 3, unless it can be proven that the organics have been separated from the wastes after Unit C. Level 3 because it is unlikely that the stabilization process has been completed when the waste is first placed into this unit.*
F. 500 gallon coalescing oil water separator that receives thermal desorption unit condensate. (Feeds unit G and offsite oil recovery operation). *Container, Level 2, unless the collected oil is completely recycled.*
G. 20,000 gallon fractionation tank, single wall, storage prior to shipment to off site wastewater treatment facility. *Container, Level 2.*

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Facility #2

Pretreatment facility for PCB and pesticides at Subtitle C hazardous waste landfill. Waste is F039, landfill leachate. See attached description and sketches. Identify whether each unit is a container or tank and indicate the appropriate level (C1, C2, C3, T1 or T2).

A. Waste sump *Tank, Level 2.*
B. 7,500-gallon accumulation tank *Container, Level 2.*
C. Vacuum truck. *Container, Level 2*
D. 15,000-gallon sedimentation tank. Sludge produced and sent to belt filter press (G). *Tank, Level 2 unless shown that waste vapor pressure is consistently (statistically) below vapor pressure limits for the tank size.*
E. Three 300-gallon mixing tanks. *Tank, Level 2 unless shown that waste vapor pressure is consistently (statistically) below vapor pressure limits for the tank size. Check stabilization for coagulation/flocculation treatment tank.*
F. 5,000 gallon sedimentation tank. Sludge produced and sent to belt filter press (G). *Tank, Level 2 unless shown that waste vapor pressure is consistently (statistically) below vapor pressure limits for the tank size. Check stabilization for coagulation/flocculation process likely occurring in tank.*
G. Belt filter press for sludge thickening. Squeezed out water is returned to 15,000 gallon tank (D). *Tank, Level 2 unless shown that waste vapor pressure is consistently (statistically) below vapor pressure limits for the tank size.* Sludge is placed into 55 gallon drums for off site disposal. *Containers, Level 1.*
H. Three 250,000 gallon tanks, used in various capacity for waste storage and surge. *Tanks, Level 2 unless shown that waste vapor pressure is consistently (statistically) below vapor pressure limits for the tank size.*

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Facility #3

TSDF for treatment of hazardous waste by stabilization or evaporation prior to landfill disposal. See attached drawings. Identify whether each unit is a container or tank and indicate the appropriate level (C1, C2, C3, T1 or T2).

A. Tanker truck discharge into 2-acre evaporation pond (two subcells of about 1 acre each). See Drawing No. 28. *No organic air emission controls on evaporation ponds. Not allowed to receive any waste unless proven to be below Subpart CC threshold for control (500 ppmw for a single waste).*
B. Four stabilization bins for mixing of hazardous waste with reagents such as lime or cement, located in dust containment structure. See Drawings No. 33 and 34. *No organic air emission controls on stabilization bins, although dust and particulate controls do exist. Not allowed to receive any waste unless proven to be below Subpart CC threshold for control (500 ppmw for a single waste).*
C. Drum handling unit, see Drawing No. 37. *Containers, Level 1. Allowed to contain wastes with organics, if properly operated, but no stabilization may take place.*
D. Liquid waste receiving and storage unit consisting of two 9,000 gallon double lined steel tanks with truck receiving station and truck loading station. See Drawing 40, Sheets 1 and 2. *No organic air emission controls on tanks. Not allowed to receive any waste unless proven to be below Subpart CC threshold for control (500 ppmw for a single waste).*

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Facility #4

Wastewater treatment plant, 11 million gallons per day/7600 gallons per minute capacity, Treating recovered groundwater for oil/grease, arsenic, chromium (VI), iron, copper, zinc volatile organic compounds (wide variety), phosphates, nitrates and general organic matter represented by biological oxygen demand. Treatment consists of the following steps: preliminary treatment by coalescing oil water separators (COWS); two primary treatment steps consisting each of coagulation, flocculation, settlement and filtration; an activated sludge/biological nutrient removal and filtration secondary treatment step; and a disinfection step. While the treatment plant has a NPDES permit for its outfall and therefore is excluded from Subpart CC, the sludges are not. The following sludges or byproducts are produced:

A. Oil and grease from the COWS;
B. Primary settlement sludge from chromium, arsenic, and iron treatment;
C. Primary settlement sludge from zinc and copper treatment; and,
D. Secondary sludge from activated sludge treatment of general organic matter, nitrate and phosphates.

Identify whether each unit is a container or tank and indicate the appropriate level (C1, C2, C3, T1 or T2).

Waste water treatment plant exemption allowed, excludes from Subpart CC control the preliminary treatment tanks, the primary treatment tanks and filters, and the aerated basin and filtration for secondary treatment. However, wastes separated from wastestream in the oil and grease removal step using coalescing oil water separators (COWS) are not excluded from control under Subpart CC. Therefore, oil and grease holding tanks or containers are required to have Subpart CC controls (likely Tank Level 2 or Container Level 2 requirements).